

Notice of Allowability

Application No.

10/800,714

Examiner

Rene Towa

Applicant(s)

ONO ET AL.

Art Unit

3736

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment of July 7, 2006.
2. ☒ The allowed claim(s) is/are 3-6 and 9-15.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

DETAILED ACTION

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.
2. Authorization for this examiner's amendment was given in a telephone interview with Justin Darrow on September 15, 2006.
3. The application has been amended as follows:

In regards to claim 13, at lines 1-2, the limitations

"A computer program product including a medium recording a program for
diagnosing sleep apnea syndrome, the program being operable to execute"

have been changed to

--A computer program product including a tangible computer readable medium
for diagnosing sleep apnea syndrome, the program being operable to cause a computer
to execute--.

Allowable Subject Matter

4. The following is an examiner's statement of reasons for allowance:

In regards to claim 3, no prior art of record teaches or fairly suggests a sleep apnea syndrome diagnosing device comprising a correlation coefficient calculator operable to sequentially compute a correlation coefficient between a stored comparison snoring sound of a predetermined length and a stored reference snoring sound of a

predetermined length at a plurality of repetitions; wherein a first and a second moving period setters sequentially and respectively set the length of the comparison and reference snoring sounds at each repetition; wherein a representative value extractor extracts a representative correlation coefficient among the correlation coefficients computed after a plurality of repetitions.

In regards to claim 9, no prior art of record teaches or fairly suggests a sleep apnea syndrome diagnosing method comprising the steps of sequentially computing a correlation coefficient between a stored comparison snoring sound of a predetermined length and a stored reference snoring sound of a predetermined length at a plurality of repetitions; wherein a first and a second moving period setters sequentially and respectively set the length of the comparison and reference snoring sounds at each repetition; wherein a representative value extractor extracts a representative correlation coefficient among the correlation coefficients computed after a plurality of repetitions; wherein the diagnosis of the sleep apnea is based on the representative correlation coefficient.

In regards to claim 13, no prior art of record teaches or fairly suggests a computer program product including a tangible computer readable medium for diagnosing sleep apnea syndrome operable to cause a computer to sequentially compute a correlation coefficient between a stored comparison snoring sound of a predetermined length and a stored reference snoring sound of a predetermined length at a plurality of repetitions; wherein a first and a second moving period setters sequentially and respectively set the lengths of the comparison and reference snoring

sounds at each repetition; wherein a representative value extractor extracts a representative correlation coefficient among the correlation coefficients computed after a plurality of repetitions.

In regards to claim 14, no prior art of record teaches or fairly suggests a signal analyzer comprising a correlation coefficient calculator operable to sequentially compute a correlation coefficient between a stored comparison snoring sound of a predetermined length and a stored reference snoring sound of a predetermined length at a plurality of repetitions; wherein a first and a second moving period setters sequentially and respectively set the lengths of the comparison and reference snoring sounds at each repetition; wherein a representative value extractor extracts a representative correlation coefficient among the correlation coefficients computed after a plurality of repetitions.

In regards to claim 15, no prior art of record teaches or fairly suggests a signal analyzing method comprising sequentially computing a correlation coefficient between a stored comparison snoring sound of a predetermined length and a stored reference snoring sound of a predetermined length at a plurality of repetitions; wherein a first and a second moving period setters sequentially and respectively set the lengths of the comparison and reference snoring sounds at each repetition; wherein a representative value extractor extracts a representative correlation coefficient among the correlation coefficients computed after a plurality of repetitions.

5. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably

Art Unit: 3736

accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."


Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rene Towa whose telephone number is (571) 272-8758. The examiner can normally be reached on M-F, 8:00-16:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Max Hindenburg can be reached on (571) 272-4726. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

RTT



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